REMARKS

In response to the Office Action dated October 18, 2007, claims 1, 14, 22, and 26 have been amended. Therefore, claims 1-7, 9, 11-15, and 18-32 remain in the case. In light of the amendments and arguments set forth herein, reexamination and reconsideration of the application are requested.

Section 103(a) Rejections

The Office Action rejected claims 1-7, 9, 11-15, and 18-32 under 35 U.S.C. § 103(a) as being unpatentable over Bayer et al. (U.S. Patent No. 6,311,190) in view of Oracle 8i (Oracle 8i is described in two papers: "Programming Environments for Oracle Objects", pp. 1-18 (hereinafter referred to as Reference A, and "Programmatic Environments", pp. 1-27 (hereinafter referred to as Reference B)) and further in view of Blumberg (U.S. Patent No. 6,240,415).

The Office Action stated that Bayer et al. disclose all elements of the Applicants' claimed invention except that Bayer et al. and Oracle 8i do "presenting a survey question and a plurality of responses to voters viewing the live television event; directing the voters to cast votes over the Internet at a web site of a sponsor of the live television broadcast event; [and] presenting the final voting results to viewers on the live television broadcast event prior to its conclusion." However, the Office Action stated that Blumberg teaches these claimed features. Therefore, the Office Action asserted that "[O]ne of ordinary skill in the art at the time of the invention would modify the combined teachings of Bayer et al. and Oracle 8i regarding providing for surveys and voting using a database and a cache, to include the step of providing feedback results during a live broadcast television event, as taught by Blumberg, because it would engage the viewers of the television event by involving them in the decision-making process of the live television event."

In response, the Applicants respectfully traverse these rejections. In general, the Applicants submit that the combination of Bayer et al., the Oracle 8i papers, and Blumberg is lacking at least one element of the Applicants' claimed invention. More specifically, neither Bayer et al., the Oracle 8i papers, nor Blumberg, either explicitly or implicitly, the

material claimed features of:

1.   (Regarding amended independent claim 1): "caching the raw votes received from the voters in a memory cache of the Live Event Object for a predefined time interval, the raw votes having never been written in a database"; and

        "writing the intermediate voting results and each raw vote accumulated over the predefined time interval to the database at the predefined interval only after each raw vote received has been cached and tabulated as a batch in the memory cache."

2.   (Regarding amended independent claim 14): "an object residing in a memory cache on the server for caching raw votes received from the voters during a predefined time interval, the raw votes having never been written to a database"; and

        "a database having a connection with the object that receives and writes the intermediate voting result and each raw vote received during the predefined tine interval to the database at the predefined time interval only after each raw vote received has been cached and tabulated as a batch in the memory cache."

3.   (Regarding amended independent claim 22): "a Live Event Object residing in a memory cache on a Live Event Vote Server, the Live Event Object receiving and caching voting data over a predefined time interval from a client in communication with the computer network, the voting data having never been written in a database"; and

        "writing the intermediate voting results and each raw vote accumulated over the predefined time interval to the database which is a Live Event Database through persistent connections between the Live Event Object and the Live Event Database only after each raw vote received has been cached and tabulated as a batch in the memory cache."

4.   Regarding amended independent claim 26): "accumulating the raw
votes in the server memory in a memory cache during a predefined time
interval, the raw votes having never been written in a database"; and
"writing the intermediate voting result and each raw vote accumulated
over the predefined time interval to the database at the end of the
predefined time interval only after each raw vote received has been
cached and tabulated as a batch in the memory cache."

Further, the combination fails to appreciate the advantages of these claimed
features. In addition, there is no technical suggestion or motivation disclosed in either
Bayer et al., the Oracle 8i papers, or Blumberg to define these claimed features. Thus, the
Applicants submit that the combination of Bayer et al., the Oracle 8i papers, and Blumberg
cannot make obvious the Applicants' claimed features listed above.

To make a prima facie showing of obviousness, all of the claimed features of an
Applicant's invention must be considered, especially when they are missing from the
prior art. If a claimed feature is not disclosed in the prior art and has advantages not
appreciated by the prior art, then no prima facie showing of obviousness has been
made. The Federal Circuit Court has held that it was an error not to distinguish claims
over a combination of prior art references where a material limitation in the claimed
system and its purpose was not taught therein. In re Fine, 837 F.2d 1071, 5 USPQ2d
1596 (Fed. Cir. 1988). Moreover, as stated in the MPEP, if a prior art reference does
not disclose, suggest or provide any motivation for at least one claimed feature of an
Applicant's invention, then a prima facie case of obviousness has not been established
(MPEP § 2142).

Amended Independent Claims 1, 14, 22 and 26
Amended independent claim 1 of the Applicants' claimed invention recites a
method for facilitating interactive voting over the Internet during a corresponding live

television broadcast event. The method includes presenting a survey question and a plurality of responses to voters viewing the live television broadcast event, directing the voters to cast votes over the Internet at a web site of a sponsor of the live television broadcast event, transmitting each of the votes over the Internet to a server of the web site, receiving raw votes from the voters over the Internet at a the web site server in response to the survey question, and providing a Live Event Object residing on the server that maintains persistent connections between the Live Event Object and a database. The method also includes <u>caching the raw votes</u> received from the voters in a memory cache of the Live Event Object for a predefined time interval, the <u>raw votes having never been written in a database</u>; and tabulating as a batch in the memory cache the cached raw votes accumulated over the predefined time interval to generate intermediate voting results. The votes are <u>cached and tabulated</u> in the Live Event Object <u>prior to writing in the database</u>. The method further includes <u>writing the intermediate voting results and each raw vote accumulated over the predefined time interval to the database</u> at the predefined interval <u>only after each raw vote received has been cached and tabulated as a batch in the memory cache</u>, computing in real time a final voting result to the survey question by continuously tallying each of the intermediate voting results written in the database, and presenting the final voting results to viewers on the live television broadcast event prior to its conclusion.

Amended independent claim 14 of the Applicants' claimed invention recites an interactive voting system using a computer network. The system includes a server in communication with the computer network for receiving votes from a plurality of voters in response to a polling question presented to the voters during a live broadcast event that directs the plurality of voters to respond to the polling question by visiting a web site, an object residing in a memory cache on the server for <u>caching raw votes received from the voters</u> during a predefined time interval, the <u>raw votes having never been written to a</u> database, and summing as a batch the raw votes accumulated during that predefined time interval to compute an intermediate voting result. The object is a non-relational object. The system further includes a database having a connection with the object that receives and <u>writes the intermediate voting result and each raw vote received during the predefined</u>

<u>tine interval to the database</u> at the predefined time interval <u>only after each raw vote received has been cached and tabulated as a batch in the memory cache</u>, such that a plurality of intermediate voting results for different time intervals are generated, and a final voting result tabulated in real time by summing each of the plurality of intermediate voting results and presented during the live broadcast event. The votes are <u>cached and summed in the object prior to writing in the database</u>.

Amended independent claim 22 of the Applicants' claimed invention recites an interactive voting system that uses a computer network to process voting data in response to a survey question asked during a live television broadcast. The system includes a Live Event Vote Server in communication with the computer network and accessible at a web site of a sponsor of the live television broadcast, a Live Event Object residing in a memory cache on a Live Event Vote Server, the Live Event Object <u>receiving and caching voting data</u> over a predefined time interval from a client in communication with the computer network, the <u>voting data having never been written in a database</u>, the voting data representing responses to the survey questions given by viewers of the live television broadcast after having visited the sponsor's web site. The Live Event Object also tabulates as a batch the cached voting data accumulated over the predefined time interval to generate an intermediate voting result, and <u>writes the intermediate voting results and each raw vote accumulated over the predefined time interval to the database</u> which is a Live Event Database through persistent connections between the Live Event Object and the Live Event Database <u>only after each raw vote received has been cached and tabulated as a batch in the memory cache</u>. The intermediate voting result is used to compute a final voting result in real-time and the final voting result is presented to television viewers during the live television broadcast, wherein the <u>voting data is cached and tabulated in the Live Event Object prior to writing to the Live Event Database</u>.

Amended independent claim 26 of the Applicants' claimed invention recites a computer network having a plurality of clients and a server, a computer-implemented method for providing interactive voting over the Internet during a live television broadcast. The method includes presenting a survey question and a number of responses to voters

viewing the live television broadcast, directing voters viewing the live television broadcast to cast a raw vote for one or more of the responses by using at least one of the plurality of clients to visit a web site of a sponsor of the live television broadcast, transmitting votes submitted by the voters using the plurality of clients over the Internet to the server located at the sponsor's web site, and providing an object resident in memory on the server that contains procedures and instructions for manipulating the raw votes. The method further includes accumulating the raw votes in the server memory in a memory cache during a predefined time interval, the raw votes having never been written in a database, and tabulating as a batch in the memory cache the accumulated cached raw votes at the end of the predefine time interval to generate an intermediate voting result. The votes are cached and tabulated prior to writing in the database. The method also includes writing the intermediate voting result and each raw vote accumulated over the predefined time interval to the database at the end of the predefined time interval only after each raw vote received has been cached and tabulated as a batch in the memory cache, establishing and maintaining a persistent connection between the object and the database to facilitate writing of the intermediate voting results, repeating the accumulation of votes and the writing of intermediate results to the database to obtain a plurality of intermediate results, tabulating the plurality of intermediate results to obtain a final voting result in real time, and presenting the final voting results within time constraints of the live television broadcast.

Amended claims 1, 14, 22, and 26 recite accumulating in a memory cache the raw votes received from voters over a network (such as the Internet). These raw votes have never been written in a database. In other words, the raw votes are received from the network and then placed in the memory cache without being written to a database.

The high-density interactive voting system and method "caches votes received from voters and performs batch processing prior to sending the batch results to the Live Event Database" (specification, page 11, lines 16-18; emphasis added). The tabulation of raw votes in the memory cache after a certain time interval generates intermediate voting results.

Once these intermediate voting results are generated in the memory cache, only then are both the intermediate voting result and the raw votes written to the database. The votes are cached and tabulated in the memory cache and then written in the database. Up to this time, the <u>raw votes have never been written to a database</u>, having been received from the voter over the network, placed in the memory cache, and tabulated to generate the intermediate voting results.

In contrast, the combination of Bayer et al., the Oracle 8i papers, and Blumberg merely discloses manipulating in a cache data that has <u>already been written to a database</u>. More specifically, the combination discloses taking a data object that <u>has been written in a database</u>, loading the data object into a cache, processing the data object, and writing the changes made to the object to the database.

The Oracle 8i papers disclose an Oracle Call Interface (OCI) that "applications can use to manipulate data and schemas <u>in an Oracle database</u>" (Reference A, page 1, first two sentences under the heading "Oracle Call Interface (OCI)). The data has <u>already been written</u> to the database. The OCI supports a "client side object cache for caching object in memory", and supports "flushing changes made to objects in the client cache to the database" (Reference A, page 2, second paragraph under the heading "Navigational Access", bullets 1 and 7; emphasis added). Moreover, "database object are loaded into the cache" (Reference A, page 2, second paragraph under the heading "Object Cache", line 1). In other words, the <u>data has already been written to the database</u>. Once written to the database, the data can be loaded into a cache and processed, and the changes are written to the database.

In the "Response to Arguments" section of the Office Action it is argued that the loading the database objects into the cache prior to manipulating the data "is simply the starting point for counting the votes." It is the Applicants' understanding that this argument set forth by the Examiner is that irrespective of where the data is obtained, both the Oracle 8i papers and amended claims 1, 14, 22, and 26 recite manipulating the data in a memory cache and then writing the changes to a database. While this is true

in part, the Applicants' claimed invention as recited in amended claims 1, 14, 22, and 26 also differs in at least two important ways. First, the data that is in the memory cache has never been written to a database. This data is the raw votes received over the network from voters and sent to the memory cache for processing. This processing includes tabulation, where all the received raw votes during a certain time interval are summed to generate an intermediate voting result. Second, both the intermediate voting result and the raw votes then are written to the database. This is the first time that both the intermediate voting results and the raw votes are written to a database. Up until this time they have resided in the memory cache.

Consequently, no motivation or suggestion for the claimed feature of the Applicants' invention is provided. Absent this teaching, motivation or suggestion, the combination of Bayer et al., References A and B, and Blumberg cannot render the Applicants' claimed invention obvious (MPEP § 2143.01).

The combination also fails to appreciate or recognize the advantages of the Applicants' claimed feature of caching and tabulating the votes in the Live Event Object prior to writing in the database. More specifically, "[V]ote caching as performed by the present invention allows these intermediate voting results to be tabulated continuously to generate final voting results much faster than can be obtained by tabulating each vote individually. Thus, another advantage of the present invention is that, unlike previous interactive voting techniques that tabulate results after all the votes have been received, the present invention computes intermediate voting results at specified intervals to enable rapid and real-time tabulation of final voting results" (specification, page 6, lines 3-9). Moreover, the Applicants' claimed invention does not have to first write the vote to the database, thereby saving time and processing power. Neither Bayer et al., Reference A, Reference B, nor Blumberg discuss or appreciate these advantages of the Applicants' claimed feature.

The Applicants, therefore, submit that obviousness cannot be established since the combination of Bayer et al., the Oracle 8i papers, and Blumberg fails to teach,

disclose, suggest or provide any motivation for the Applicants' material claimed features recited in amended claims 1, 14, 22, and 26, as outlined above. In addition to explicitly lacking these features, the combination of Bayer et al., the Oracle 8i papers, and Blumberg also fails to implicitly disclose, suggest, or provide explicit or implicit motivation for these features. Further, the combination fails to appreciate advantages of these claimed features.

Therefore, as set forth in *In re Fine* and MPEP § 2142, the combination of Bayer et al., the Oracle 8i papers, and Blumberg does not render the Applicants' claimed invention recited in amended claims 1, 14, 22, and 26, obvious because the combination is missing at least one material feature. Consequently, because a prima facie case of obviousness cannot be established due to the lack of "some teaching, suggestion, or incentive supporting the combination", the rejection must be withdrawn. ACS Hospital Systems, Inc. v. Montefiore Hospital, 732 F.2d 1572, 1577, 221 USPQ 929, 933 (Fed. Cir. 1984); MPEP 2143.01.

Accordingly, the Applicants respectfully submit that amended independent claims 1, 14, 22 and 26 are patentable under 35 U.S.C. § 103(a) over Bayer et al. in view of the Oracle 8i papers (References A and B) and further in view of Blumberg based on the amendments to claims 1, 14, 22, and 26 and the legal and technical arguments set forth above. Moreover, claims 2-7, 9, and 11-13 depend from amended independent claim 1, claims 15, and 18-21 depend from amended independent claim 14, claims 23-25 depend from amended independent claim 22, and claims 27 and 29 depend from amended independent claim 26 and are also nonobvious over Bayer et al. in view of the Oracle 8i papers and further in view of Blumberg (MPEP § 2143.03). The Applicants, therefore, respectfully request reexamination, reconsideration and withdrawal of the rejection of claims 1-7, 9, 11-15, and 18-32.
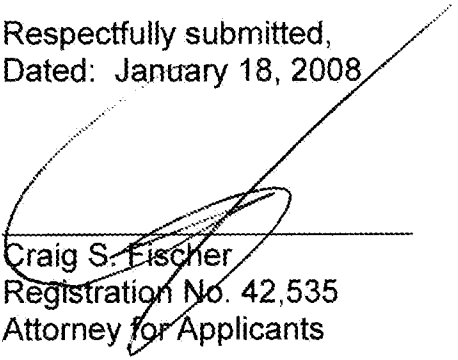
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Conclusion

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Because the Applicants' claimed invention includes features neither taught, disclosed nor suggested by the art cited in the Office Action, the Applicants respectfully submit that the rejections of claims 1-7, 9, 11-15, and 18-32 has been overcome.

The Applicants, therefore, submit that claims 1-7, 9, 11-15, and 18-32 of the subject application are in condition for immediate allowance. The Examiner, therefore, is respectfully requested to withdraw the outstanding rejections of the claims and to pass all of the claims of this application to issue.

In an effort to expedite and further the prosecution of the subject application, the Applicants kindly invite the Examiner to telephone the Applicants' attorney at (805) 278-8855 if the Examiner has any comments, questions or concerns, wishes to discuss any aspect of the prosecution of this application, or desires any degree of clarification of this response.

Respectfully submitted,
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